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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/553,395

07/10/2006

Masahiro Ohmori

Q75284

9014

23373 7590 03/04/2009  
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EXAMINER

JACKSON, MONIQUE R

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

03/04/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/553,395	<b>Applicant(s)</b> OHMORI, MASAHIRO	
	<b>Examiner</b> Monique R. Jackson	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The amendment filed 12/18/08 has been entered. New claims 16-19 have been added. Claims 1-19 are pending in the application. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Claim Rejections - 35 USC § 103***

2. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kefalas (USPN 3,523,823.) Kefalas teaches a “soft” magnetic memory film of the nickel-cobalt type electroless plated onto a substrate, with a thickness being below about two microns, wherein the electroless plating provides controlled anisotropy characteristics (Entire document, particularly Abstract; Col. 2.) Kefalas teaches that the by using electroless plating methods, one can plate soft magnetic films to a smooth glass substrate wherein superior "roughness uniformity" results in superior magnetic properties (Col. 2, lines 23-45.) Kefalas teaches that it is important to maintain low concentration of nickel and cobalt relative to phosphorus or “hypo” concentration in the alloy, such as about 1:1.5 at pH 8.0 (Abstract; Col. 2.) Kefalas teaches that the soft magnetic layer can be formed on metal or non-metal substrates including glass or ceramic substrates (Col. 2.) Though Kefalas does not specifically teach the surface roughness Ra as instantly claimed, it would have been obvious to one having ordinary skill in the art to utilize routine experimentation to determine the optimum surface roughness Ra, including the number and size of projections and depressions, to provide the desired running stability or to minimize adverse noise, wherein a surface roughness Ra within the claimed range is typical in the art and can be easily obtained by known polishing steps, wherein the instantly claimed polishing steps and polishing liquids are known and conventionally utilized in the art and would have been

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obvious to one having ordinary skill in the art at the time of the invention. With regards to the amount of each element in the alloy, one having ordinary skill in the art at the time of the invention would have been motivated to utilize routine experimentation and recited in the prior office action to determine a suitable metal alloy content to provide the desired “soft” magnetic properties for a particular end use, wherein the incorporation of boron would have been obvious. With regards to Claim 16, the Examiner notes that the electroless plated film taught by Kefalas would meet the claimed limitation given that it is formed by the same method as instantly claimed, namely electroless plating.

3. Claims are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 03072611 A (JP’611.) JP’611 teaches an electroless plated soft magnetic thin film comprising cobalt and boron wherein the soft magnetic film contains Co, as a main component and up to 8wt% B, preferably having up to 1 Oe coercive force (Abstract.) JP’611 teaches that a thickness of 0.05 microns will suffice for the formation of even films but that the preferred thickness of the film is 0.05 to 1 microns (Abstract.) Though JP’611 does not specifically teach the surface roughness Ra as instantly claimed, it would have been obvious to one having ordinary skill in the art to utilize routine experimentation to determine the optimum surface roughness Ra, including the number and size of projections and depressions, to provide the desired running stability or to minimize adverse noise, wherein a surface roughness Ra within the claimed range is typical in the art and can be easily obtained by known polishing steps, wherein the instantly claimed polishing steps and polishing liquids are known and conventionally utilized in the art and would have been obvious to one having ordinary skill in the art at the time of the invention. With regards to the amount of each element in the alloy, one having ordinary skill in the art at the time

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of the invention would have been motivated to utilize routine experimentation and recited in the prior office action to determine a suitable metal alloy content to provide the desired “soft” magnetic properties for a particular end use, wherein the incorporation of phosphorus would have been obvious. Lastly, with regards to Claim 16, the Examiner notes that the electroless plated film taught by Kefalas would meet the claimed limitation given that it is formed by the same method as instantly claimed, namely electroless plating.

***Response to Arguments***

4. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R. Jackson whose telephone number is 571-272-1508.

The examiner can normally be reached on Mondays-Thursdays, 10:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Monique R Jackson/  
Primary Examiner, Art Unit 1794  
March 2, 2009